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BOARD OF EDITORS { Mr. Horace E. Smith, Chief Clerk of Weather Bureau, Professors Henry A. Hazen, Thomas Russell, and Charles F. Marvin, and Mr. Edward B. Garriott, in charge of Review Room.

INTRODUCTION.

This REVIEW is based on reports for June, 1892, from 2,902 regular and voluntary observers. These reports are classified as follows: 164 reports from Weather Bureau stations; 44 reports from United States Army post surgeons; 1,922 monthly reports from state weather service and voluntary observers; 220 reports through the Central Pacific Railway Company; 519 marine reports through the co-operation of the Hydrographic Office, Navy Department; 33 reports from Canadian stations; marine reports through the "New York Herald Weather Service;" and monthly reports from local weather services established in all states and territories, except Idaho. Trustworthy newspaper extracts and special reports have also been used.

CHARACTERISTICS OF THE WEATHER FOR JUNE, 1892.

In parts of western Pennsylvania, northern Ohio, and Wisconsin excessive rainfall interfered with farming operations. In adjoining portions of Nebraska, Kansas, and Missouri the month was unusually dry and warm.

TEMPERATURE.

Unusually warm weather prevailed from the Lake region and middle Mississippi valley to the middle Atlantic and New England coasts, and at stations in southern New England, southern New York, Pennsylvania, and northeastern Ohio the month was the warmest June on record. In the Rocky Mountain and plateau regions, along the Pacific coast, in the extreme northwest, and along the Gulf coast the weather was cooler than usual, and at points in the middle Missouri valley, western Florida, and Louisiana it was the coolest June on record. On the 13th and 14th the highest temperature ever reported for June was noted at points in the middle Atlantic and New England states. The eleven-day period ending June 24th was unusually warm throughout the middle Atlantic states, the daily maximum temperatures ranging almost continuously 5° to 10° above the normal, and in some instances were the highest ever reported for the season. Frost was reported at intervals during the month in the north-central districts, at stations in the Rocky Mountain region, and at elevated points in the middle and southern plateau regions and California.

PRECIPITATION.

A marked excess in precipitation occurred from the extreme upper Mississippi valley over the greater part of the Lake region and northwestern New England, and at points in those districts the precipitation was the greatest ever noted for June. The most marked deficiency occurred in the lower Missouri valley, and at points in Kansas and Nebraska the monthly precipitation was the least ever noted for June.

LOCAL STORMS.

As usual in June severe local storms occurred in the central valleys and thence to the Atlantic coast, their occurrence being noted most frequently in New York, Pennsylvania, North Carolina, Ohio, Illinois, and Iowa. Among the more destructive storms of the month were those noted in Johnson county, Tex., on the 5th, in New England on the 14th, in Minnesota on the 15th, in southern Wisconsin on the 16th, in Minnesota on the 20th, and in New Jersey on the 30th.

FLOODS.

The month opened with the middle and lower Mississippi and Red rivers above the danger-line. The Arkansas River passed the danger-line at Fort Smith, Ark., on the 2d, at Little Rock, Ark., on the 3d, and reached a maximum stage at Little Rock on the 6th. The highest stage of water on record at New Orleans, La., 17.6 feet, was reached on the 11th. At Davenport, Iowa, the Mississippi River reached the highest stage ever recorded at that point on the 27th. At the close of the month the Mississippi River was above the danger-line at La Crosse, Wis., Dubuque and Keokuk, Iowa, Helena and Arkansas City, Ark., Vicksburg, Miss., and New Orleans, La.

Destructive floods occurred in northern, western, and central Indiana in the early part of the month; along the Gasconade and Osage rivers, Missouri, on the 2d; in northwest Pennsylvania on the 5th; in Vermont on the 22d; and in Illinois on the 23d. On the 24th the Missouri River reached the highest stage on record, 18.1 feet, at Fort Buford, N. Dak.

ATMOSPHERIC PRESSURE (expressed in inches and hundredths).

The distribution of mean atmospheric pressure for June, 1892, as determined from observations taken daily at 8 a. m. and 8 p. m. (75th meridian time), is shown on Chart II by isobars.

In June the normal pressure is highest along the immediate north Pacific coast, where it is above 30.05, and it is above 30.00 in districts east of the Mississippi and south of the Ohio rivers. The normal pressure for June is lowest in the lower Colorado valley, where it is below 29.80; it is below 29.85 in the Saskatchewan and upper Missouri valleys, and is below 29.90 generally over the Rocky Mountain and plateau regions, and in the middle and lower Saint Lawrence valleys.

There is usually a decrease of pressure, except in the Gulf States and on the north Pacific coast where the pressure is slightly higher than for May. The most marked decrease of pressure occurs in the extreme southern Colorado valley, in

Manitoba, and over the Canadian Maritime Provinces, where it is .05.

In June, 1892, the mean pressure was highest along the south Atlantic and north Pacific coasts, and over the Florida Peninsula, where it was above 30.05, and it was above 30.00 generally east of the Mississippi and south of the Ohio rivers, and along the Pacific coast north of San Francisco. The mean pressure was lowest over the Gila and lower Colorado valleys and in southeast California, where it was below 29.80; it was below 29.85 over the north part of the Gulf of Saint Lawrence, and was below 29.90 in the Rocky Mountain and plateau regions, the middle and upper Missouri and Saskatchewan valleys, and over the northern part of the Canadian Maritime Provinces.

A comparison of the pressure chart for June, 1892, with that of the preceding month shows a decrease of pressure, except along the middle and north Pacific coasts, along the Atlantic coast from south New England to North Carolina, and in an area extending from the west Gulf coast to Lake Michigan. The most marked decrease of pressure was noted from Colorado and Nebraska over the Saskatchewan Valley, where it was .10 to .20, and the decrease was .05 to .10 over the Rocky Mountain and plateau regions, in the middle Missouri and Red River of the North valleys, and over the north part of the Gulf of Saint Lawrence. The greatest increase of pressure occurred over western Oregon, where it exceeded .05, and the increase was .02 to .04 from the middle Mississippi valley to central Texas.

The mean pressure was generally below the normal over the central valleys, and over the interior of southern California, in north Pacific coast states, except along the immediate coast, over the southern plateau region and Texas, and over parts of eastern New England and the Canadian Maritime Provinces. The most marked departure below the normal pressure was noted in the upper Sacramento valley, California, and over southern New Mexico, eastern Ontario, and eastern New Brunswick, where it was more than .05, and the greatest departure above the normal pressure occurred in the lower Saskatchewan valley, on the North Carolina coast, and at Yarmouth, N. S., where it exceeded .05.

HIGH AND LOW AREAS.

The paths of areas of high and low pressure over the United States and Canada during June, 1892, are shown on Charts IV and I, respectively, and some of the more prominent characteristics of the areas are given in the table at the end of this chapter.

HIGH AREAS.

Seven high areas appeared, the average number traced for the corresponding month of the last 18 years being 5.8. Of the high areas traced for the current month, 2 advanced from the north Pacific coast, 2 first appeared over the northern plateau region, 2 were first located near Manitoba, one moved eastward from the southeast slope of the Rocky Mountains, and one passed southeastward from the Saskatchewan Valley. Of the Pacific high areas, one, number III, traversed the continent and disappeared off the North Carolina coast; the other disappeared by a decrease of pressure over the west Gulf states. The high areas from the northern plateau region disappeared off the New England coast; the areas from Manitoba were last located off the middle Atlantic coast; the area from the southeast slope of the Rocky Mountains disappeared off the south Atlantic coast; and the area from the Saskatchewan Valley was central over Iowa at the close of the month. The high areas generally moved southeastward to the central valleys and thence eastward to the Atlantic coast, and those that reached New York and New England passed thence southward or southeastward. The following is a description of the high areas referred to:

I.—Was a continuation of high area VIII for May, 1892, and the morning of the 1st was central north of Minnesota, with pressure above 30.20. During the 2d this high area occupied the Lake Superior region, with a slight decrease of pressure, and during the 3d advanced north of the middle Saint Lawrence River, with a slight increase of pressure. By the evening of the 4th the center had passed southward off the New England coast, with pressure above 30.40, and on the 5th occupied the ocean off the middle Atlantic coast. Attending the passage of this high area the lowest temperature of the month was noted from South Dakota to New Mexico and western Texas and at Lake Michigan stations on the 1st, from the upper Mississippi and middle Missouri valleys to the west Gulf coast on the 2d, along the Mississippi River from Memphis, Tenn., to Vicksburg, Miss., and in northern Lower Michigan on the 3d, from southern Illinois to the middle Gulf coast and in southeastern Lower Michigan on the 4th, and in south-central Tennessee and at points on the North Carolina and South Carolina coasts on the 5th.

II.—Was a subsidiary development to number I. On the 1st a ridge of high pressure extended from Minnesota to the Rio Grande River, and at the evening report two centers of higher pressure appeared, one, number I, north of Minnesota, and the other, number II, over Indian Territory, where the pressure rose to 30.16. This ridge of high pressure shifted eastward and continued unbroken until the 3d, and from that date until the 6th, when it apparently united with high area I over the south Atlantic states, number II was ill-defined and its passage was unattended by noteworthy features.

III.—High pressure obtained along the north Pacific coast until the 3d, and the evening report of that date showed this high area central off the mouth of the Columbia River, with pressure above 30.20. During the 4th the center advanced to Wyoming, where it remained nearly stationary during the 5th. On the 6th it shifted position southward over eastern Colorado in the rear of low area III, and during the 7th moved to South Dakota, where it almost lost its identity. Moving to the Lake Superior region during the 8th it passed over the northeastern Lake region by the morning of the 10th and settled southward over the middle Atlantic states by the morning of the 11th, with pressure above 30.10. During the 12th the high area occupied the Atlantic coast states south of Pennsylvania, where it remained, with pressure above 30.10, during the 13th, after which it disappeared to the eastward. Attending the passage of this high area the lowest temperature of the month was noted over the middle plateau region and at San Francisco, Cal., on the 4th, in southeastern Montana on the 5th, in New York, New England, New Jersey, eastern Pennsylvania, Maryland, District of Columbia, and eastern Virginia on the 11th, and generally in Virginia and North Carolina on the 12th.

IV.—Appeared north of Lake Superior the morning of the 6th with pressure 30.20, passed to the upper Saint Lawrence valley by the evening of the 7th, and advancing thence southeastward over western New England was central off the middle Atlantic coast the evening of the 8th, the highest pressure noted during its passage being 30.28 on the southeast New England coast at the morning report of the 8th.

V.—Appeared over Wyoming the morning of the 13th, with pressure above 30.10, advanced to Lake Michigan by the evening of the 14th, and passed off the New England coast during the 15th. A notable feature of this high area was the marked increase of pressure over Nova Scotia on the 15th, the 12-hour change at Halifax being .56.

VI.—Was central north of eastern Montana the evening of the 15th, and the evening of the 16th occupied the Dakotas, with pressure above 30.10. Advancing rapidly eastward the center was north of Lake Ontario the evening of the 17th, with pressure above 30.20, and during the 18th passed southeastward and disappeared off the south New England coast. From the 14th to 16th the lowest temperature of the month was noted in the Red River of the North Valley.

VII.—High pressure obtained on the north Pacific coast from the 18th to 21st, and the morning of the 22d this high area was central over Alberta, with pressure above 30.20. During the 23d the center settled southward over Montana,

and on the 24th occupied the Dakotas, with pressure above 30.30 at the morning report. The high area remained nearly stationary over the Northwest during the 25th and 26th. During the 27th it settled southward over Kansas, and on the 28th disappeared by a decrease of pressure over the west Gulf states. From the 22d to 24th the lowest temperature of the month was noted over Montana and North Dakota, and frost was reported at Moorhead, Minn., the morning of the 24th.

VIII.—Appeared north of eastern Montana the morning of the 29th, with pressure above 30.20, and moved thence southeastward to Iowa by the close of the month, with light frost at Moorhead, Minn., and Minnedosa, Man., the morning of the 30th.

LOW AREAS.

The low areas of June advance eastward over the United States at an average velocity of 25 statute miles per hour, the velocity for May, June, and July being the lowest noted for the year. They apparently originate over the plateau or Rocky Mountain regions, are usually ill-defined and of small energy, and the tracks are generally confined to districts lying west of the Mississippi and north of the Ohio rivers. In the advance over the central valleys the low areas of June are commonly attended by local storms, whose intensity and frequency are more marked in the middle and upper Mississippi and lower Missouri valleys.

Eleven low areas appeared during the current month, the average number traced for June during the last 20 years being 9.1. Of the low areas traced, one was a continuation of number X, and one a continuation of number XI, for May, 1892, 3 advanced from the Saskatchewan Valley, 2 first appeared over the northern plateau region, 2 over the middle-eastern plateau region, one was first located in the upper Mississippi valley, and one passed southeastward from the middle Saint Lawrence valley. The low areas from the Saskatchewan Valley reached the Atlantic coast, one moving off the New Jersey coast, one passing over Nova Scotia, and one advancing to the Gulf of Saint Lawrence. The low areas from the northern plateau region and the upper Mississippi valley reached the Gulf of Saint Lawrence. The low areas generally moved southeastward over the central valleys, and thence north of east, and the average velocity was about 3 miles per hour greater than usual. The following is a description of the low areas traced:

I and II.—The morning of the 1st a trough of low pressure extended from eastern Ontario to Arkansas, with two centers of lower pressure, one, low area I, a continuation of low area X for May, 1892, north of Georgian Bay, and the other, low area II, a continuation of low area XI for May, central over southwestern Missouri. Number I possessed small energy and disappeared over the Gulf of Saint Lawrence during the 2d, attended on the 1st by thunderstorms in western New York, northwestern Pennsylvania, and western Virginia, and on the 2d by thunderstorms in New York and New England. Number II showed pressure below 29.70 the morning of the 1st. Passing northeastward to northern Illinois by the morning of the 2d, with a marked increase of central pressure, this low area apparently dissipated over the Ohio Valley the night of the 2d. On the 1st heavy rain fell in Iowa, Missouri, and Arkansas, and thunderstorms occurred in northern Mississippi and eastern Texas. On the 2d heavy rain fell in eastern Lower Michigan, and thunderstorms were reported in Ohio and western Pennsylvania. On the 3d thunderstorms were noted in eastern Pennsylvania and Georgia, and heavy rain fell in western North Carolina.

III.—Was central over Alberta the morning of the 1st, with pressure below 29.80, advanced to eastern Montana by the morning of the 2d, with pressure below 29.70, and to the east-central plateau region by the evening of that date. The center remained nearly stationary over Colorado during the 3d, with pressure below 29.60, and high winds in the Rocky Mountain regions, a velocity of 56 miles per hour from the southeast being noted at Amarillo, Tex. During the 4th the center moved to southwestern Nebraska, rain fell in the middle and upper Missouri valleys and on the middle-eastern slope of the Rocky Mountains, severe local storms occurred from Nebraska to northern Texas, and the wind reached a velocity of 50 miles per hour from the southeast at Dodge City, Kans.

During the 5th the center passed to southeastern South Dakota, with an increase of pressure, rain fell in areas in the eastern Dakotas, Nebraska, Oklahoma and Indian territories, and western Arkansas, cloud-bursts were noted in South Dakota, and a destructive local storm was reported in Johnson Co., Tex. On the 6th the center of disturbance reached southern Minnesota, rain fell from the Dakotas and Nebraska to the western Lake region and in the middle Mississippi valley, cloud-bursts occurred in Iowa and South Dakota, thunderstorms in Illinois, western Kentucky, and western Tennessee, and a wind velocity of 52 miles per hour from the northwest was reported at Memphis, Tenn.

On the 7th the storm-center advanced to southern Wisconsin, where it was ill-defined. On that date the rain area extended to the Virginia and south Atlantic coasts, and severe thunderstorms occurred in the Ohio and middle Mississippi valleys and Wisconsin. During the 8th the center moved to Lower Michigan, rain fell generally east of the Mississippi River, except in eastern New England, and thunderstorms occurred from the Ohio Valley over New York, Pennsylvania, and western Virginia. During the 9th the low area advanced to southeastern Pennsylvania, rain fell generally east of the 85th meridian, heavy rain was reported from New York to Virginia and West Virginia, and thunderstorms occurred in New York, New Jersey, Pennsylvania, and eastern Kentucky.

IV.—Appeared over the northern plateau region the morning of the 6th, with pressure below 29.80, and advanced thence to the western Dakotas by the evening of the 8th, with pressure below 29.60, and thunderstorms in the Dakotas and Utah. During the 9th the center moved to Colorado, with pressure below 29.50, and high south to southwest winds and thunderstorms in South Dakota. Passing to South Dakota during the 11th the low area showed pressure below 29.30. On that date high winds prevailed from the Dakotas to Texas, and thunderstorms were reported in North Dakota, Montana, and Utah. On the 11th the center of disturbance reached Manitoba, rain fell from the middle plateau region over Montana and North Dakota, and severe local storms occurred in North Dakota and northwestern Minnesota. The low area remained nearly stationary over the valley of the Red River of the North during the 12th, with rain and thunderstorms in areas in the north-central districts, and on the 13th moved rapidly eastward to the lower Saint Lawrence valley, with thunder and hail storms in the lower Ohio valley, the Lake region, Iowa, Nebraska, and Maine, and a wind velocity of 72 miles per hour from the northwest at Chicago, Ill. During the 14th the center disappeared over the Gulf of Saint Lawrence, and thunder and hail storms were reported in New York, New England, Ohio, and Michigan.

V.—Appeared over the northern plateau region the morning of the 14th, with pressure below 29.80, passed eastward to Minnesota by the evening of the 15th, and reached the Gulf of Saint Lawrence the evening of the 16th, the lowest pressure being noted in eastern Colorado and eastern Wyoming the evening of the 14th, when it fell below 29.60. On the 14th rain fell over the plateau region and on the northeast slope of the Rocky Mountains in the rear of the storm-center, local storms occurred in Montana and the Dakotas, and heavy south gales prevailed over Nebraska, a velocity of 60 miles per hour being noted at North Platte. On the 15th rain fell in areas in the Lake region and the central valleys, severe local storms occurred in Minnesota, Wisconsin, Iowa, Nebraska, and Kansas, and high south winds prevailed over Kansas. On the 16th the rain area reached New England, and thunder and hail storms were reported in New York, Pennsylvania, and Ohio. Rain continued in New England on the 17th, and thunderstorms occurred in New England, New York, and Pennsylvania.

VI.—Appeared over eastern Colorado the evening of the 15th, with pressure below 29.60, remained over Nebraska and Kansas during the 16th, advanced over the lower Missouri valley during the 17th, to extreme southern Wisconsin during the 18th, moved northward over Michigan during the 19th, and apparently united with low area VII, which was advancing eastward over the Saskatchewan Valley. On the 16th thunderstorms occurred in Colorado. On the 17th rain fell generally from the middle and southeast slopes of the Rocky Mountains over the southern Lake region, the Ohio Valley, and the east Gulf states, and thunderstorms were reported in Missouri and Texas. On the 18th rain was general from the middle and lower Mississippi valleys to the Atlantic coast, and thunderstorms occurred in the south Atlantic and east Gulf states, and in the Ohio Valley and eastern Texas. On the 19th rain fell in large areas east of the Rocky Mountains, and thunderstorms were reported in the Ohio Valley, Tennessee, Pennsylvania, Iowa, Missouri, and Kansas.

VII.—The pressure was low over the Saskatchewan Valley from the 16th to the 19th, and at the evening report of the 19th this low area occupied the region north of Montana, with pressure below 29.50. During the 20th the center moved eastward over Manitoba, reached the Lake Superior region on the 21st, the middle Saint Lawrence valley by the morning of the 22d, and disappeared east of Nova Scotia during the 22d, the lowest pressure being noted over Manitoba the morning of the 20th, when it was below 29.40. On the 19th the rain area extended from the Saskatchewan Valley to Iowa and Wisconsin, and local storms occurred in the lower Missouri valley.

On the 20th rain fell in areas in the north-central districts and thunderstorms were reported in Iowa, Minnesota, and South Dakota. On the 21st rain fell in the lower Missouri and middle Mississippi valleys, the Lake region, and generally in the Atlantic coast states, and thunderstorms occurred in the Ohio Valley and Tennessee, Michigan, Iowa, Arkansas, North Carolina, and Georgia. On the 22d rain was followed by clearing weather in New England and the middle Atlantic states, and thunderstorms were reported in New York and Maryland.

VIII.—Apparently moved southeastward over the Saint Lawrence Valley and the morning of the 20th was central over New England, with pressure 29.50. Passing thence eastsoutheast the low area disappeared off the Nova Scotia coast the night of the 20th, its passage being attended by rain over New England and along the middle Atlantic coast, and high southwest winds on the southeast New England coast.

IX.—Advanced from the southern plateau region and the morning of the 22d was central over Nebraska, with pressure below 29.60. Advancing rapidly eastward, this low area reached southeastern New York the evening of the 23d, and passed thence eastward off the New England coast. On the 22d the rain area extended from the Missouri Valley over the Lake region, the wind reached a velocity of 52 miles per hour from the northwest at Chicago, Ill., and local storms were reported in Minnesota, Wisconsin, South Dakota, and Iowa. On the 23d rain fell generally from the upper Mississippi Valley to the middle Atlantic and New England coasts, the wind reached a velocity of 51 miles per hour from the northwest at Cleveland, Ohio, and local storms occurred in Massachusetts, New Jersey, the Ohio Valley, Michigan, and Wisconsin.

X.—Appeared over eastern Iowa the evening of the 26th, with pressure below 29.80. The morning of the 27th the center was near Manistee, Mich., with pressure 29.48, and by the evening of that date had advanced to Georgian Bay, where the pressure was 29.40. During the 28th the center moved northeastward and disappeared north of the region of observation. On the 26th rain fell from the Red River and Missouri valleys over the western Lake region, and local storms occurred in Illinois, Iowa, Missouri, and Kansas. On the 27th rain fell generally east of the Mississippi River, and thunderstorms were reported in the Atlantic coast states from Maine to North Carolina, and in West Virginia, Tennessee, and Michigan. On the 28th the weather was clearing south of New England and the Lake region, and high southwest winds, reaching a velocity of 50 miles per hour, were noted on the North Carolina coast.

XI.—Was central over Alberta the morning of the 28th, with pressure below 29.70. By the morning of the 29th the center had advanced to Lake Superior, with pressure below 29.70, and at the close of the month was central in the lower Saint Lawrence valley. On the 29th rain fell from the middle and upper Mississippi valleys over the Lake region, and thunderstorms were reported from Arkansas, Texas, Pennsylvania, and New York. On the 30th rain was followed by clearing weather in the Lake region, rain fell generally east of the Mississippi and south of the Ohio rivers, and thunderstorms were reported in New England, the middle Atlantic states, and Tennessee.

Tabulated statement showing principal characteristics of areas of high and low pressure.

Barometer.	First observed.			Last observed.		Duration.	Velocity per hour.	Maximum pressure change in 12 hours, maximum abnormal temperature change in 12 hours, and maximum wind velocity.								
	Date.	Lat. N.	Long. W.	Lat. N.	Long. W.			Station.	Rise.	Date.	Station.	Fall.	Date.	Station.	Direction.	Miles per hour.	Date.
High areas.		°	°	°	°	*Days.*	*Miles.*		*Inch.*			°					
I	1	50	94	36	67	4.5	28	Rockliffe, Ont	.30	2	Port Huron, Mich	20	2	Sydney, C. B. I	nw.	20	4
II	1	36	100	34	80	4.5	12	San Antonio, Tex	.46	1	Springfield, Mo	20	1	Kitty Hawk, N.C	sw.	18	6
III	3	45	125	35	74	10.0	21	Pueblo, Colo	.36	4	Pueblo, Colo	25	4	Eureka, Cal	n.	30	3
IV	6	51	87	38	70	2.5	22	Father Point, Quebec	.44	7	Pittsburg, Pa	12	7	White River, Ont	ne.	16	6
V	13	44	108	40	70	2.5	35	Halifax, N. S	.56	15	Dubuque, Iowa Oswego, N. Y	24 24	13 14	Swift Current, N. W. T	s.	24	13
VI	15	50	105	41	67	3.0	31	Anticosti Island, G. of St. L	.40	17	Green Bay, Wis	19	16	Block Island, R. I	se.	40	18
VII	21	47	125	35	95	6.5	25	Medicine Hat, N. W. T	.32	22	Calgary, N. W. T	27	21	Galveston, Tex	e.	36	28
VIII	29	52	105	42	93	1.5	28	Wichita, Kans	.38	30	Dodge City, Kans	24	30	Winnipeg, Man	e.	20	30
Mean						4.4	25		.40			21				25	
Low areas.									Fall.			Rise.					
I	1	47	80	48	60	1.0	40	Chatham, N. B	.28	1	Portland, Me	15	1	Block Island, R. I	sw.	34	2
II	1	37	93	41	86	1.5	14	Lynchburgh, Va	.14	2	Springfield, Mo	12	1	Detroit, Mich	se.	46	1
III	1	52	115	40	76	8.5	15	Havre, Mont	.50	1	Cheyenne, Wyo	15	2	Amarillo, Tex	se.	56	3
IV	6	46	118	49	65	8.0	20	Sydney, C. B. I	.32	14	Portland, Me	29	13	Chicago, Ill	nw.	72	13
V	14	47	115	51	65	2.5	43	Denver, Colo	.38	14	Valentine, Nebr	17	14	Kearney, Nebr	sw.	64	15
VI	15	38	105	48	88	4.0	19	Port Arthur, Ont	.22	19	Sandusky, Ohio	14	16	Amarillo, Tex	s.	52	16
VII	19	52	110	46	72	2.5	29	Medicine Hat, N. W. T	.54	19	Montrose, Colo	12	19	Bismarck, N. Dak	nw.	40	20
VIII	20	45	70	44	63	0.5	29	Portland, Me	.26	20	Philadelphia, Pa	14	19	Woods Holl, Mass	sw.	51	20
IX	22	42	99	42	74	1.5	38	Yankton, S. Dak	.14	22	Montrose, Colo	18	21	Chicago, Ill	nw.	52	22
X	26	42	91	49	74	2.0	21	Manistee, Mich	.42	27	Concordia, Kans	14	25	Kitty Hawk, N. C Southport, N. C	sw.	50	28
XI	28	50	112	49	68	2.5	35	Calgary, N. W. T	.38	27	Spokane, Wash Olympia, Wash	20	27	Amarillo, Tex	s.	54	29
Mean						3.1	28		.33			16				52	